

IN THE CLAIMS

1. (Currently Amended) A coil spring comprising:
a plurality of non-overlapping primary canted round wire coils, each having a major and a minor axis and canted along a coil centerline defined by an intersection of the primary coil major and minor axis; and
a plurality of secondary canted round wire coils, having a major and a minor axis and canted along a coil centerline defined by an intersection of the second coil major and minor axis, the primary and secondary coils being offset from one another, contiguous and differentiated from one another by a dimensional size in order to provide variable force and variable deflection, said secondary wire coils being disposed between adjoining and contiguous primary wire coils, said primary and secondary coils being joined to form a garter spring and said primary and secondary coils being disposed with one of a concave turn angle and a convex turn angle within the garter spring.
2. (Original) The coil spring according to claim 1 wherein the secondary coils have a smaller diameter than a diameter of the primary coils.
3. (Cancelled)
4. (Previously Presented) The coil spring according to claim 2 wherein the primary and secondary coils are offset toward a bottom of the coil spring.
5. (Previously Presented) The coil spring according to claim 1 wherein the primary and secondary coils are offset toward a top of the coil spring.
6. (Original) The coil spring according to claim 1 wherein the primary and secondary coils are round.
7. (Original) The coil spring according to claim 1 wherein the primary coils are canted and secondary coils are helical.

8. (Original) The coil spring according to claim 1 wherein the secondary coils are of heavier gauge wire than a wire gauge of the primary coils.

9. (Original) The coil spring according to claim 1 wherein the primary coils are elliptical and the secondary coils are round.

10. (Original) The coil spring according to claim 1 wherein the primary and secondary coils are canted with variable canting.

11. (Original) The coil spring according to claim 1 wherein the primary and secondary coils are disposed in an alternating pattern along a centerline.

12. (Cancelled)

13. (Cancelled)

14. (Cancelled)

15. (Original) The coil spring according to claim 1 wherein the primary coil is radial and the secondary spring is axial.

16. (Cancelled)

17. (Cancelled)

18. (Cancelled)

19. (Original) The coil spring according to claim 1 wherein at least one of the primary and secondary coils has a D cross-section.

20. (Original) The coil spring according to claim 1 wherein at least one of the primary and secondary coils has a square cross-section.

21. (Original) The coil spring according to claim 1 wherein at least one of the primary and secondary coils has a rectangular cross-section.

22. (Original) The coil spring according to claim 1 wherein at least one of the primary and secondary coils has a triangular cross-section.

23. (Original) The coil spring according to claim 1 wherein at least one of the primary and secondary coils have a cross-section with flat sides.

24. (Original) The coil spring according to claim 1 wherein at least one of the primary and secondary coils is V shaped.

25. (Currently Amended) A coil spring comprising:

a plurality of non-overlapping primary canted round wire coils, each having a major and a minor axis and canted along a coil centerline defined by an intersection of the primary coil major and minor axis; and

a plurality of secondary canted round wire coils, having a major and a minor axis and canted along a coil centerline defined by an intersection of the second coil major and minor axis, the primary and secondary coils being disposed in an eccentric manner about the center a spring centerline in order to provide variable force and variable deflection, said secondary wire coils being disposed between adjoining and contiguous primary wire coils, said primary and secondary coils being offset toward one of a bottom and a top of the coil spring, said primary and secondary coils being joined to form a garter spring and said primary and secondary coils being disposed with one of a concave turn angle and a convex turn angle within the garter spring.

26. (Previously Presented) The coil spring according to claim 25 wherein the secondary coils have a smaller diameter than a diameter of the primary coils.

27. (Previously Presented) The coil spring according to claim 25 wherein the primary and secondary coils are elliptic and offset toward a bottom of the coil spring.

28. (Previously Presented) The coil spring according to claim 25 wherein the primary coils and secondary coils are offset toward a top of the coil spring.

29. (Original) The coil spring according to claim 25 wherein the primary coils are canted and the secondary coils are helical.

30. (Original) The coil spring according to claim 25 wherein the secondary coils are of heavier gauge wire than a wire gauge of the primary coils.

31. (Original) The coil spring according to claim 25 wherein the primary coils are elliptical and the secondary coils are round.

32. (Original) The coil spring according to claim 25 wherein the primary and secondary coils are canted with variable canting.

33. (Original) The coil spring according to claim 25 wherein the primary and secondary coils are disposed in an alternating pattern along a centerline.

34. (Cancelled)

35. (Cancelled)

36. (Cancelled)

37. (Original) The coil spring according to claim 25 wherein the primary coil is radial and the secondary spring is axial.

38. (Cancelled)

39. (Cancelled)

40. (Cancelled)

41. (Original) The coil spring according to claim 25 wherein at least one of the primary and secondary coils has a D cross-section.

42. (Original) The coil spring according to claim 25 wherein at least one of the primary and secondary coils has a square cross-section.

43. (Original) The coil spring according to claim 25 wherein at least one of the primary and secondary coils has a rectangular cross-section.

44. (Original) The coil spring according to claim 25 wherein at least one of the primary and secondary coils has a triangular cross-section.

45. (Original) The coil spring according to claim 25 wherein at least one of the primary and secondary coils has a cross-section with flat sides.